

Mineral Industry Surveys

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ZINC IN DECEMBER 2003

Domestic mine production (zinc content of concentrate) in December was 62,900 metric tons (t), which was about 1% less than production in November and about 8% less than in December 2002, according to the U.S. Geological Survey. Smelter production was 20,200 t, which was 14% less than in November and in December 2002. Apparent consumption was 98,100 t, which was about 19% more than in November and about 10% more than in December 2002.

The Platts Metals Week average monthly composite price for North American Special High Grade zinc increased by about 7% in December to 47.85 cents per pound, compared with that of November. The price was about 21% higher than in December 2002.

The Doe Run Company recently announced the closure of its Viburnum No. 28 Mine located in the Viburnum Trend, MO. Closure, which should be completed in 2004, includes equipment removal and permanent sealing of shafts. The Viburnum Trend stretches over a distance of 32 miles in southeastern Missouri. Privately held Doe Run is one of the largest employers in that region of Missouri. Based in St. Louis, Doe Run is North America's largest integrated lead producer and third largest zinc concentrate producer (Doe Run Company, 2004§¹).

On December 23, 2003, Sun Capital Partners Inc. completed the purchase of Horsehead Industries Inc. The sale included subsidiary Zinc Corp. of America (ZCA), which was the world's largest recycler of zinc-bearing materials, mostly electric arc furnace (EAF) dust from the steel industry. ZCA produces more than 165,000 metric tons per year (t/yr) of zinc products and recycles more than 450,000 t of EAF dust annually. Horsehead employs more than 1,000 people in six States (Platts Metals Week, 2004). Unexpected help during the negotiations with creditors and the union came in the form of rising zinc prices. At the beginning of negotiations, Sun Capital hoped for zinc prices to reach 45 cents per pound, as opposed to the prevailing 36 cents; on January 8 prices rose to more than 46 cents per

pound (Metal Bulletin, 2004).

Ontzinc Corp. declared that in order to restart its newly acquired Balmat Mine, Balmat, NY, in the first quarter of 2004 the company needed to raise about \$25 million. The mine, acquired from Horsehead Industries Inc. in 2003, is scheduled to produce 57,000 t/yr of zinc in concentrate (CRU International Ltd., 2004).

Update

On January 21, 2004, the U.S. Supreme Court ruled that Federal air quality regulators may overrule their State counterparts when it can be proven that State regulators have unreasonably given industry the right to expand emissions in pollution-free areas. The Supreme Court overruled Alaska's Department of Environmental Protection, which, citing the high cost of alternative technology, allowed Teck Cominco Ltd. to expand its Red Dog Mine after installing pollution-control technology that reduced emission by less than an alternative device would have. By a vote of 5 to 4, the Court reinforced federal supremacy in pollution-control matters (Lane, 2004).

Pasminco Ltd. of Australia confirmed plans to relist on the Australian Stock Exchange under the new name of Zinifex. A \$2 billion refloat of a stock offering was originally planned for November 2002 but was postponed owing to weak equity markets and falling commodity prices. With zinc prices approaching a 3-year high on the London Metal Exchange in January 2004, the company judged market conditions to be good enough for the float. Pasminco's creditors hoped that the float was a better way to recoup at least part of the \$2.8 billion they are owed than selling of the company would be. Zinifex will hold the best of the Pasminco assets including the Century open pit zinc mine in Queensland and the Rosebury underground zinc-lead-silver mine in Tasmania. Zinifex was also expected to retain the Budel, Port Pirie, and Risdom smelters, contingent on approval from various governments and shareholders (Metal Pages, 2004§).

¹References that include a section mark (§) are found in the Internet References Cited section.

References Cited

CRU International Ltd., 2004, CRU week in the news: CRU International Ltd., January 22, p. 3.
Metal Bulletin, 2004, Horsehead owner sees business on firm ground: Metal Bulletin, no. 8824, January 12, p. 14.
Platts Metals Week, 2004, Horsehead Industries sale completed: Platts Metals Week, v. 75, no. 2, January 12, p. 12.
Lane, Charles, 2004, Justices decide EPA can overrule states: Washington Post, January 22, p. A12.

Internet References Cited

Doe Run Company, 2004 (January 8), Viburnum Mine hoisting last load of lead ore, ending 41 years of operations, accessed January 30, 2004, at URL <http://doerun.com>.
Metal-Pages, 2004 (January 28), Pasminco to be refloated as Zinifex, accessed February 2, 2004, at URL <http://www.metal-pages.com>.

TABLE 1
SALIENT ZINC STATISTICS¹

(Metric tons, unless otherwise specified)

	2002	2003			
	January- December	October	November	December	January- December
Production:					
Mine, zinc content of concentrate	780,000	60,900	63,400 ^r	62,900	768,000
Mine, recoverable zinc	754,000	58,600	61,000 ^r	60,500	738,000
Smelter, refined zinc	259,000	21,800	23,500	20,200	272,000
Consumption:					
Refined zinc, reported	421,000	36,800 ^r	35,300 ^r	36,100	423,000
Ores ^e (zinc content)	617	61	61	61	727
Zinc-base scrap ^e (zinc content)	189,000	15,900	15,900	15,900	191,000
Copper-base scrap ^e (zinc content)	176,000	14,700	14,700	14,700	176,000
Aluminum-and magnesium-base scrap ^e (zinc content)	1,430	120	120	120	1,430
Total ^e	789,000	67,600 ^r	66,100 ^r	66,800	791,000
Apparent consumption, metal ²	1,150,000	76,400 ^r	82,100	98,100	1,050,000 ³
Stocks of refined (slab) zinc, end of period:					
Producer ⁴	XX	8,300	8,010 ^r	7,660	XX
Consumer ⁵	XX	54,900	56,700 ^r	55,300	XX
Merchant	XX	9,950	10,100	10,300	XX
Total	XX	73,100	74,800 ^r	73,300	XX
Shipments of zinc metal from Government stockpile	5,040	--	539	6,270	13,600
Imports for consumption:					
Refined (slab) zinc	874,000	59,900	70,300	NA	691,000 ⁶
Oxide (gross weight)	69,700	8,950	7,150	NA	89,500 ⁶
Ore and concentrate (zinc content)	122,000	24,000	7,060	NA	137,000 ⁶
Exports:					
Refined (slab) zinc	1,160	227	161	NA	1,470 ⁶
Oxide (gross weight)	10,800	927	912	NA	10,900 ⁶
Ore and concentrate (zinc content)	822,000	183,000	18,800	NA	806,000 ⁶
Waste and scrap (gross weight)	47,700	5,050	6,690	NA	46,400 ⁶
Price:					
London Metal Exchange, average, dollars per metric ton	\$778.38	\$897.54	\$914.16	\$977.35	\$827.32
Platts Metals Week North American Special High Grade, average, cents per pound	38.64	43.70	44.80	47.85	40.63

^eEstimated. ^rRevised. NA Not available. XX Not applicable. -- Zero.

¹Data are rounded to no more than three significant digits; except prices; may not add to totals shown.

²Smelter production plus imports minus exports plus shipments from Government stockpile plus stock change.

³Data based on reported consumption, stocks, and estimated trade data.

⁴Data from U.S. Geological Survey and American Bureau of Metal Statistics.

⁵Includes an estimate for companies that report annually.

⁶Includes data through November only.

TABLE 2
REFINED ZINC PRODUCED IN THE UNITED STATES¹

(Metric tons)

Month	Beginning stocks ²	Production	Shipments	Ending stocks ²
2002:				
December	7,970	23,500	22,900	8,550
Year	XX	259,000	257,000	XX
2003:				
January	8,550	24,900	21,500	11,900
February	11,900	22,800	25,800	8,930
March	8,930	21,700	24,500	6,110
April	6,110	23,000	20,700	8,340
May	8,340	22,400	23,500	7,300
June	7,300	24,200	23,700	7,770
July	7,770	22,100	21,500	8,360
August	8,360	23,500	23,600	8,230
September	8,230	21,600	22,100	7,790
October	7,790	21,800	21,300	8,300
November	8,300	23,500	23,800	8,010
December	8,010	20,200	20,500	7,660
January-December	XX	272,000	273,000	XX

XX Not applicable.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes stocks held at locations other than smelters.

Sources: U.S. Geological Survey and American Bureau of Metal Statistics.

TABLE 3
APPARENT CONSUMPTION OF REFINED ZINC ACCORDING TO INDUSTRY USE AND PRODUCT

(Metric tons)

Industry and product	2002	2003			
	January- December	October ^r	November	December ²	January- December
Galvanizing:					
Sheet and strip	477,000	32,000	34,200 ^r	41,100	442,000
Other	175,000	9,600	10,900 ^r	14,100	146,000
Total	652,000	41,600	45,100	55,300	588,000
Brass and bronze	189,000	12,600	13,100	15,400	167,000
Zinc-base alloy	233,000	16,200	17,400	20,300	222,000
Other uses ³	71,700	6,000	6,400 ^r	7,100	70,700
Grand total	1,150,000	76,400	82,100	98,100	1,050,000

^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Data based on reported consumption, stocks and estimated trade data.

³Includes zinc used in making zinc dust, desilvering lead, powder, alloys, anodes, chemicals, castings, light metal alloys, rolled zinc, and miscellaneous uses not elsewhere specified.

TABLE 4
AVERAGE MONTHLY ZINC PRICES¹

Period	North American	LME cash	
	¢/lb.	¢/lb.	\$/t
2002:			
December	39.69	36.17	797.36
Year	38.64	35.31	778.38
2003:			
January	38.72	35.43	781.01
February	38.68	35.60	784.80
March	38.88	35.86	790.60
April	37.23	34.21	754.30
May	38.18	35.17	775.33
June	38.87	35.85	790.31
July	40.54	37.52	827.19
August	40.10	37.08	817.48
September	40.07	37.10	817.81
October	43.70	40.71	897.54
November	44.80	41.47	914.16
December	47.85	44.33	977.35
January-December	40.63	37.53	827.32

¹Special High Grade.

Source: Platts Metals Week.

TABLE 5
U.S. EXPORTS OF ZINC¹

Material	2002		2003 ²			
	Quantity (metric tons)	Value (thousands)	November		Year to date	
			Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Refined (slab) zinc	1,160	\$1,210	161	\$180	1,470	\$1,540
Ore and concentrate (zinc content)	822,000	322,000	18,800	5,800	806,000	328,000
Waste and scrap (gross weight)	47,700	23,000	6,690	4,630	46,400	29,900
Powders, flakes, dust (zinc content)	5,660	8,120	455	746	6,090	8,340
Oxide (gross weight)	10,800	14,600	912	1,620	10,900	13,500
Chloride (gross weight)	1,950	1,930	197	245	1,400	1,540
Sulfate (gross weight)	2,900	1,760	198	166	2,230	1,390
Compounds, other (gross weight)	217	600	5	20	139	381

¹Data are rounded to no more than three significant digits.

²Data for December 2003 were not available at time of publication.

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF ZINC¹

Material	2002		2003 ²			
	Quantity (metric tons)	Value (thousands)	November		Year to date	
			Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Refined (slab) zinc	874,000	\$716,000	70,300	\$63,700	691,000	\$584,000
Ore and concentrate (zinc content)	122,000	44,600	7,060	3,280	137,000	47,700
Waste and scrap (gross weight)	31,200	9,530	623	396	9,520	5,290
Powders, flakes, dust (zinc content)	30,900	47,800	2,050	3,070	25,600	38,400
Oxide (gross weight)	69,700	57,600	7,150	5,800	89,500	66,500
Chloride (gross weight)	716	775	6	40	614	814
Sulfate (gross weight)	20,100	10,300	1,060	538	23,300	10,500
Compounds, other (gross weight)	1,030	1,180	135	131	887	852

¹Data are rounded to no more than three significant digits.

²Data for December 2003 were not available at time of publication.

Source: U.S. Census Bureau.

TABLE 7
SHIPMENTS OF ZINC METAL FROM THE NATIONAL DEFENSE
STOCKPILE¹

(Metric tons)

Period	Beginning inventory	Shipments	Ending inventory
2002:			
December	109,000	--	109,000
Year	XX	5,040	XX
2003:			
January	109,000	516	108,000
February	108,000	--	108,000
March	108,000	--	108,000
April	108,000	200	108,000
May	108,000	997	107,000
June	107,000	--	107,000
July	107,000	3,530	104,000
August	104,000	712	103,000
September	103,000	841	102,000
October	102,000	--	102,000
November	102,000	539	102,000
December	102,000	6,270	95,200
January-December	XX	13,600	XX

XX Not applicable. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

Source: Defense Logistics Agency.

TABLE 8
U.S. IMPORTS OF ZINC, BY TYPE OF MATERIAL AND COUNTRY^{1,2}

(Metric tons)

Material and country	General imports			Imports for consumption		
	2002	2003		2002	2003	
		November	Year to date		November	Year to date
Ore and concentrate (zinc content):						
Australia	41,800	--	27,400	41,800	--	27,400
Ireland	6,570	--	31,700	6,570	--	31,700
Mexico	12,700	--	5,880	12,700	--	5,880
Peru	61,100	7,060	71,700	61,100	7,060	71,700
Other	118	--	--	118	--	--
Total	122,000	7,060	137,000	122,000	7,060	137,000
Blocks, pigs, or slab:						
Australia	35,000	--	22,000	21,000	--	14,000
Brazil	30,200	1,450	21,700	30,200	1,450	16,600
Canada	523,000	40,100	456,000	523,000	40,100	456,000
China	39,700	--	23,800	1,040	--	22
Japan	10,500	--	50	--	--	--
Kazakhstan	93,200	7,750	19,700	93,200	7,750	19,700
Korea, Republic of	76,200	--	34,000	2,480	--	24
Mexico	136,000	10,800	127,000	136,000	10,800	127,000
Peru	36,000	2,090	39,700	34,300	2,090	39,200
Poland	9,340	--	1,600	9,340	--	1,600
Russia	10,700	--	--	10,700	--	--
Other	25,200	8,100	17,000	13,100	8,100	16,100
Total	1,020,000	70,300	763,000	874,000	70,300	691,000
Dross, ashes, fume (zinc content)	15,500	1,360	12,800	15,500	1,360	12,800
Grand total	1,160,000	78,800	913,000	1,010,000	78,800	840,000
Oxide (gross weight):						
Canada	44,800	4,150	44,000	44,800	4,150	44,000
China	838	40	531	838	40	531
Japan	869	69	907	869	69	907
Mexico	19,900	2,520	36,000	19,900	2,520	36,000
Netherlands	2,640	363	4,210	2,640	363	4,210
Other	760	1	3,760	760	1	3,760
Total	69,700	7,150	89,500	69,700	7,150	89,500
Other (gross weight):						
Waste and scrap	31,200	623	9,520	31,200	623	9,520
Sheets	1,640	71	1,720	1,640	71	1,720
Powders, flakes, dust (zinc content)	30,900	2,050	25,600	30,900	2,050	25,600

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Data for December 2003 were not available at time of publication.

Source: U.S. Census Bureau.